

Docket No. 500.40384X00
Serial No. 09/911,715
Office Action dated March 14, 2005

AMENDMENTS TO THE CLAIMS:

The following listing of claims replaces all prior listings, and all prior versions, of claims in the application.

LISTING OF CLAIMS:

1. (Currently Amended) An image output device for outputting a color of different tones on a medium, comprising:

a function for outputting, on said medium, test chart data having tone-changing areas where a tone of a color output changes in steps arranged alternately with tone-fixed areas where a predetermined tone of said color is output;

input means for accepting tone information from said test chart output; and

adjusting means for adjusting output to said medium based on data for correcting said tone calculated from said tone information input.

2. (Currently Amended) An image output device for outputting a color of different tones on a medium, comprising:

a function for outputting, on said medium, test chart data having tone-changing areas where a tone of a color output changes in steps arranged alternately with tone-fixed areas where a predetermined tone of said color is output, said test chart data comprising a first proof part where said tone-fixed areas are output at a specified first tone and can be compared with tones of said tone-changing areas; a second proof part where the tone-fixed areas are output at a second tone greater than the first tone and can be compared with tones of said tone-changing areas; and ~~an intermediate~~ a third proof part where the tone-fixed areas are output at a tone between said first and second tones and can be compared with tones of said tone-changing areas; and

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input means for accepting tone information on said first, second and third proof parts from the result of test chart data output on said medium, and
adjusting means for adjusting output on said medium based on data for correcting said tone calculated from said tone information input.

3. (Currently Amended) An image output device for printing a color of different tones on a medium, comprising:

a function for outputting₁ on said medium₁ test chart data having tone-changing areas where a tone of a color to be printed changes in steps arranged alternately with tone-fixed areas where a predetermined tone of said color is printed, said test chart data comprising a first proof part where said tone-fixed areas are output at a first tone as a tone of a color of said medium and can be compared with tones of said tone-changing areas; a second proof part where the tone-fixed areas are output at a second tone greater than the first tone and can be compared with the tones of said tone-changing areas; and ~~an intermediate~~ a third proof part where the tone-fixed areas are output at a tone between said first and second tones and can be compared with the tones of said tone-changing areas;

Input means for accepting tone information on said first, second and third proof parts from the result of test chart data output on said medium; and

adjusting means for adjusting output on said medium based on data for correcting said tone calculated from said tone information input.

4. (Currently Amended) An image output device for printing a color of different tones on a medium, comprising:

a function for outputting₁ on said medium₁ test chart data having tone-changing areas where a tone of a color to be printed changes in steps arranged

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alternately with tone-fixed areas where a predetermined tone of said color is printed, said test chart data comprising a first proof part where said tone-fixed areas are output at a first tone as a tone of a color of said medium and can be compared with tones of said tone-changing areas; a second proof part where said tone-fixed areas are output at a second tone as a highest tone printable by a printer and can be compared with tones of said tone-changing areas; and ~~an intermediate~~ a third proof part where the tone-fixed areas are output at a tone between said first and second tones and can be compared with tones of said tone-changing areas;

input means for accepting tone information on said first, second and third proof parts from the result of test chart data output on said medium; and

adjusting means for adjusting output on said medium based on data for correcting said tone calculated from said tone information input.

5. (Canceled).

6. (Original) An image output device according to claim 2, wherein said tone-fixed areas of said third proof part of said test chart are arranged alternately with tone-changeable areas of said tone-changing areas in a tone-changing direction of the tone-changing areas.

7. (Original) An image output device according to claim 3, wherein said tone-fixed areas of said third proof part of said test chart are arranged alternately with tone-changeable areas of said tone-changing areas in a tone-changing direction of the tone-changing areas.

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8. (Original) An image output device according to claim 4, wherein said tone-fixed areas of said third proof part of said test chart are arranged alternately with tone-changeable areas of said tone-changing areas in a tone-changing direction of the tone-changing areas.
9. (Original) A test chart, output from an image output device capable of outputting a color of different tones on a medium and having tone-changing areas where a tone of the color output changes in steps and tone-fixed areas where a predetermined tone of said color is printed, and tone values of said tone-changing areas are readable, and wherein said tone-changing areas are arranged alternately with said tone-fixed areas, and wherein tone values can be read when a tone difference between adjacent areas of said tone-changing areas and said tone-fixed areas is greater than a specified magnitude.
10. (Currently Amended) A test chart, output from an image output device capable of outputting a color of different tones on a medium and having tone-changing areas where a tone of a color output changes in steps and tone-fixed areas where a predetermined tone of said color is printed, and tone values of said tone-changing areas are readable, said test chart comprising a first proof part where said tone-changing areas are arranged alternately with said tone-fixed areas, said tone-fixed areas are output at a first tone and can be compared with tones of said tone-changing areas, a second proof part where said tone-fixed areas are output at a second tone greater than the first tone and can be compared with the tones of said tone-changing areas, and ~~an intermediate~~ a third proof part where said tone-fixed areas are output at a tone between said first and second tones and can be compared with the tones of said tone-changing areas,

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wherein tone values having a difference in tone between adjacent pair of said tone-changing areas and said tone-fixed areas greater than a specified magnitude can be read at each of said first, second and third proof parts from results of test chart data output on the medium.

11. (Original) A test chart output from an image output device capable of outputting a color of different tones on a medium and having tone-changing areas where a tone of a color output changes in steps and tone-fixed areas where a predetermined tone of said color is printed, and tone values of said tone-changing areas are readable, said test chart comprising a first proof part where said tone-changing areas are arranged alternately with said tone-fixed areas, said tone-fixed areas are output at a first tone as a tone of said medium and can be compared with the tones of said tone-changing areas, a second proof part where said tone-fixed areas are output at a second tone greater than said first tone, and a third proof part where said tone-fixed areas are output at a tone between said first and second tones, and the tones of said tone-changing areas with said tone,

wherein tone values having a difference in tone between adjacent pair of said tone-changing areas and said tone-fixed areas greater than a specified magnitude can be read at each of said first, second and third proof parts from results of test chart data output on the medium.

12. (Currently Amended) A test chart, output from an image output device capable of outputting a color of different tones on a medium and having tone-changing areas where a tone of a color output changes in steps and tone-fixed areas where a predetermined tone of said color is printed, and tone values of said tone-changing areas are readable, said ~~table~~ test chart comprising a first proof part where

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said tone-changing areas are arranged alternately with said tone-fixed areas, said tone-fixed areas are output at a first tone as a tone of the color of said medium and can be compared with tones of said tone-changing areas; a second proof part where said tone-fixed areas are output at a second tone as a greatest tone printable by a printer and can be compared with the tones of said tone-changing areas, and a third proof part where said tone-fixed areas are output at a tone between said first and second tones and can be compared with the tones of said tone-changing areas,

wherein tone values having a difference in tone between adjacent pair of said tone-changing areas and said tone-fixed areas greater than a specified magnitude can be read at each of said first, second and third proof parts from results of test chart data output on the medium.

13. (Original) A test chart according to claim 10, wherein said tone-fixed areas of said third proof part are arranged alternately with tone-changeable areas of said tone-changing areas in a tone-changing direction of the tone-changing areas.

14. (Original) A test chart according to claim 11, wherein said tone-fixed areas of said third proof part are arranged alternately with tone-changeable areas of said tone-changing areas in a tone-changing direction of the tone-changing areas.

15. (Original) A test chart according to claim 12, wherein said tone-fixed areas of said third proof part are arranged alternately with tone-changeable areas of said tone-changing areas in a tone-changing direction of the tone-changing areas.

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16. (New) An image output device according to claim 1, wherein said test chart data has a particular pattern that is visually distinguishable according to a tone difference between said tone-changing areas and said tone-fixed areas.
17. (New) An image output device according to claim 2, wherein said test chart data has a particular pattern that is visually distinguishable according to a tone difference between said tone-changing areas and said tone-fixed areas.
18. (New) An image output device according to claim 3, wherein said test chart data has a particular pattern that is visually distinguishable according to a tone difference between said tone-changing areas and said tone-fixed areas.
19. (New) An image output device according to claim 4, wherein said test chart data has a particular pattern that is visually distinguishable according to a tone difference between said tone-changing areas and said tone-fixed areas.
20. (New) An image output device according to claim 17, wherein said tone-fixed areas of said third proof part of said test chart comprise a halftone pattern having a different dot gain from that of said tone-changing areas.
21. (New) An image output device according to claim 18, wherein said tone-fixed areas of said third proof part of said test chart comprise a halftone pattern having a different dot gain from that of said tone-changing areas.

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22. (New) An image output device according to claim 19, wherein said tone-fixed areas of said third proof part of said test chart comprise a halftone pattern having a different dot gain from that of said tone-changing areas.

23. (New) A test chart according to claim 9, wherein:

a particular pattern is formed with said tone-changing areas and said tone-fixed areas;

said particular pattern is visually distinguishable according to a tone difference between said tone-changing areas and said tone-fixed areas; and

a tone value of said tone-changing areas at which said particular pattern becomes visually undistinguishable can be read.

24. (New) A test chart according to claim 10, wherein:

a particular pattern is formed with said tone-changing areas and said tone-fixed areas;

said particular pattern is visually distinguishable according to a tone difference between said tone-changing areas and said tone-fixed areas; and

a tone value of said tone-changing areas at which said particular pattern becomes visually undistinguishable can be read.

25. (New) A test chart according to claim 11, wherein:

a particular pattern is formed with said tone-changing areas and said tone-fixed areas;

said particular pattern is visually distinguishable according to a tone difference between said tone-changing areas and said tone-fixed areas; and

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a tone value of said tone-changing areas at which said particular pattern becomes visually undistinguishable can be read.

26. (New) A test chart according to claim 12, wherein:

a particular pattern formed with said tone-changing areas and said tone-fixed areas;

said particular pattern is visually distinguishable according to a tone difference between said tone-changing areas and said tone-fixed areas; and

a tone value of said tone-changing areas at which said particular pattern becomes visually undistinguishable can be read.

27. (New) A test chart according to claim 24, wherein said tone-fixed areas of said third proof part comprise a halftone pattern having a different dot gain from that of said tone-changing areas.

28. (New) A test chart according to claim 25, wherein said tone-fixed areas of said third proof part comprise a halftone pattern having a different dot gain from that of said tone-changing areas.

29. (New) A test chart according to claim 26, wherein said tone-fixed areas of said third proof part comprise a halftone pattern having a different dot gain from that of said tone-changing areas.

30. (New) An image output device according to claim 16, wherein said particular pattern comprises a checkered pattern.

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31. (New) An image output device according to claim 20, wherein said tone-fixed areas of said third proof part comprises one of a checkered pattern and a parallel line pattern.

32. (New) An image output device according to claim 21, wherein said tone-fixed areas of said third proof part comprises one of a checkered pattern and a parallel line pattern.

33. (New) An image output device according to claim 22, wherein said tone-fixed areas of said third proof part comprises one of a checkered pattern and a parallel line pattern.